

WHAT WE CLAIM IS:

1           1.       A method for upshifting an automatically shifted parallel manual transmission that  
2 is contained in a drive train of a motor vehicle and comprises two parallel drive arms, each with its  
3 own clutch, the method comprising the steps of:

4           activating one of the drive arms by engaging the clutch allocated to the drive arm, so that a  
5 new gear can be engaged in the other drive arm;

6           activating the new gear by disengaging the engaged clutch and engaging the other clutch;  
7 and

8           upshifting under power of the parallel manual transmission based upon preset operating  
9 conditions, without an electronically controlled, load-reducing ignition retard.

1           2.       The method pursuant to Claim 1, further comprising the step of transmitting a  
2 preset operating condition by fully depressing an accelerator pedal.

1           3.       The method pursuant to Claim 2, further comprising the step of transmitting the  
2 preset operating condition by additionally actuating a shifting program.

1           4.       The method pursuant to Claim 2, further comprising the step of indicating the  
2 preset operating condition by holding the vehicle at a standstill by an actuation of the brakes when  
3 the accelerator pedal is depressed beyond a predetermined degree.

1           5.     The method pursuant to Claim 1, further comprising the step of controlling the  
2     disengagement of the one clutch and the engagement of the other clutch such that during the step of  
3     upshifting, an engine runs at least part of the time at a speed that corresponds to a highest output  
4     level of the engine.

1           6.     A method for increasing a gear ratio of an automatically-shifted parallel manual  
2     transmission, gears of the transmission are changed without interruption in propulsive power, and  
3     which is contained in a drive train of a motor vehicle, the method comprising the step of:  
4             changing the division of engine output into one portion that is available for increasing the  
5     speed of the engine and another portion that is available for the propulsion of the vehicle with an  
6     increase in the gear ratio of the transmission under power based upon the operating conditions of  
7     the drive train.

1           7.     The method pursuant to Claim 6, further comprising the step of expanding the  
2     portion of the engine output that is available for increasing the speed of the engine with an  
3     increasingly rapid actuation of the accelerator pedal.

1           8.     The method pursuant to Claim 7, further comprising the step of using the engine  
2     output for the propulsion of the vehicle with an increase in gear ratio without a change in the  
3     position of the accelerator pedal.

9. A method for controlling a parallel manual transmission in a vehicle, the method comprising the step of engaging a starting gear when the transmission is decelerating, before the vehicle drops below a minimum speed and before a disengagement of an activated driving gear.

10. A device for controlling gear ratio change in a transmission with gears that can be changed under power, the transmission being contained in a drive train of a motor vehicle, the device comprising:

a transmission;

actuators for changing a gear ratio of the transmission; and

a control unit that is connected to sensors contained in the drive train of the motor vehicle, the control unit comprising a microprocessor and allocated memory units, and the control unit controls the actuators for implementing a method for upshifting the transmission comprising two parallel drive arms, each with its own clutch, the control unit being adapted to (1) activate one of the drive arms by engaging the clutch allocated to the drive arm so that a new gear can be engaged in the other drive arm; (2) activate the new gear by disengaging the engaged clutch and engaging the other clutch; and (3) upshift under power of the parallel manual transmission based upon preset operating conditions, without an electronically controlled, load-reducing ignition retard.